

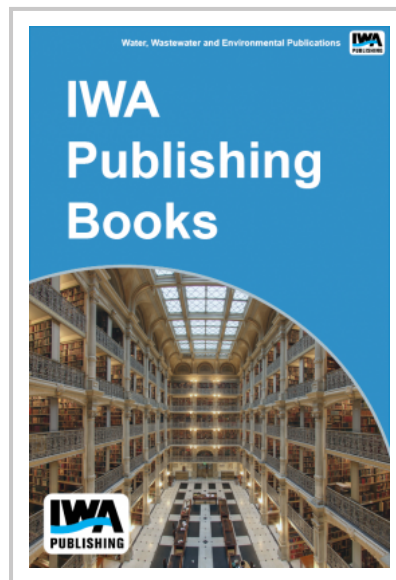
# Post-Project Monitoring of BMP's/SUDS to Determine Performance and Whole-Life Costs

Over the past 20 years, the use of Best Management Practices (BMPs) in the United States has been instrumental in reducing both the detrimental impacts to receiving water quality and the exacerbated flooding caused by urbanization and storm water drainage. More recently, Sustainable Urban Drainage Systems (SUDS) have started to be used in the United Kingdom. Both SUDS and BMPs attempt to mimic the drainage patterns of the natural watershed, and can also provide a degree of treatment needed to improve the quality of the water discharged to an acceptable level.

The costs of conventional stormwater collection systems are determined primarily in terms of initial capital expenditure. Long-term maintenance costs are absorbed by stormwater authorities that are responsible for maintaining their infrastructure as part of their "asset base". Currently, only a few of these responsibilities exist for BMPs and SUDS, which generally incorporate surface components and are often dependent on landscaping rather than on traditional construction techniques, but may require significant regular maintenance. Any potential adopting organization will require guidance on the maintenance regimes of different types of systems and how such regimes translate into long-term adoption costs.

The project is being conducted in two phases. Phase 1, which is the subject of this report, includes a literature review and a survey of stormwater authorities and organizations in the US and UK to identify the most commonly used BMPs and SUDS and to determine the availability of data on their cost and performance.

As part of [Phase 2](#)[1], the operation of selected BMPs and SUDS will be monitored over a one-year period in terms of pollutant removal and hydrologic/hydraulic efficiency, and applicability of their design criteria and maintenance regime. The protocols developed in Phase 1 will be used to assess BMPs/SUDS performance and whole-life costs.



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